

TM 11-5820-292-10

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

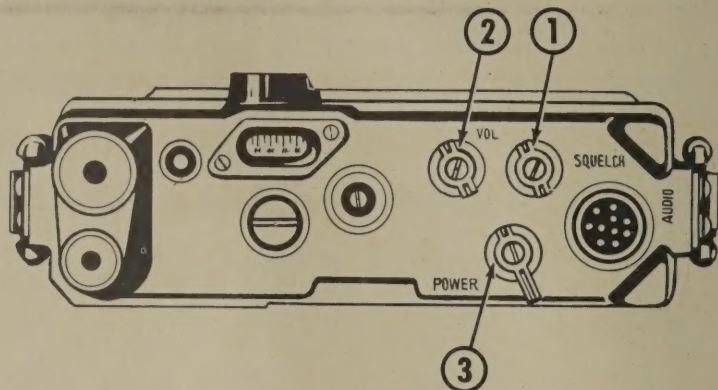
OPERATOR'S MANUAL

RADIO SETS AN/PRC-8, -8A, -9,
-9A, -10, -10A, AND -28



HEADQUARTERS, DEPARTMENT OF THE ARMY
12 SEPTEMBER 1961

CONDENSED OPERATING INSTRUCTIONS FOR RADIO SETS AN/PRC-8, -8A,-9,-9A,-10, -10A AND-28



STARTING PROCEDURE

- a. Attach the antenna required for the type of operation to the appropriate **ANT** receptacle.
- b. Attach the handset to the **AUDIO** receptacle.
- c. The following step numbers correspond to the numbers on the illustration.
 - (1) Turn the **SQUELCH** control to **OFF**.
 - (2) Turn the **VOL** control fully clockwise.
 - (3) Turn the **POWER** switch to **ON**.
- d. A rushing noise is heard in the handset receiver. Turn the **VOL** control (2) counterclockwise to produce a desirable sound level.
- e. Slowly turn the **SQUELCH** control (1) clockwise until the rushing noise stops; do not turn more than required to stop rushing noise. The radio set is now ready to receive a signal.

TM5820-292-10-14 (1)

(Instructions continued on inside of back cover.)

RADIO SETS AN/PRC-8, -8A, -9, -9A, -10, -10A, AND -28

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* This manual supersedes so much of TM 11-612, 21 December 1954, including C1, 30 December 1955; C2, 18 September 1956; C3, 20 December 1957; C4, 25 March 1959; and C5, 18 September 1961, as is applicable to operation of the equipment.

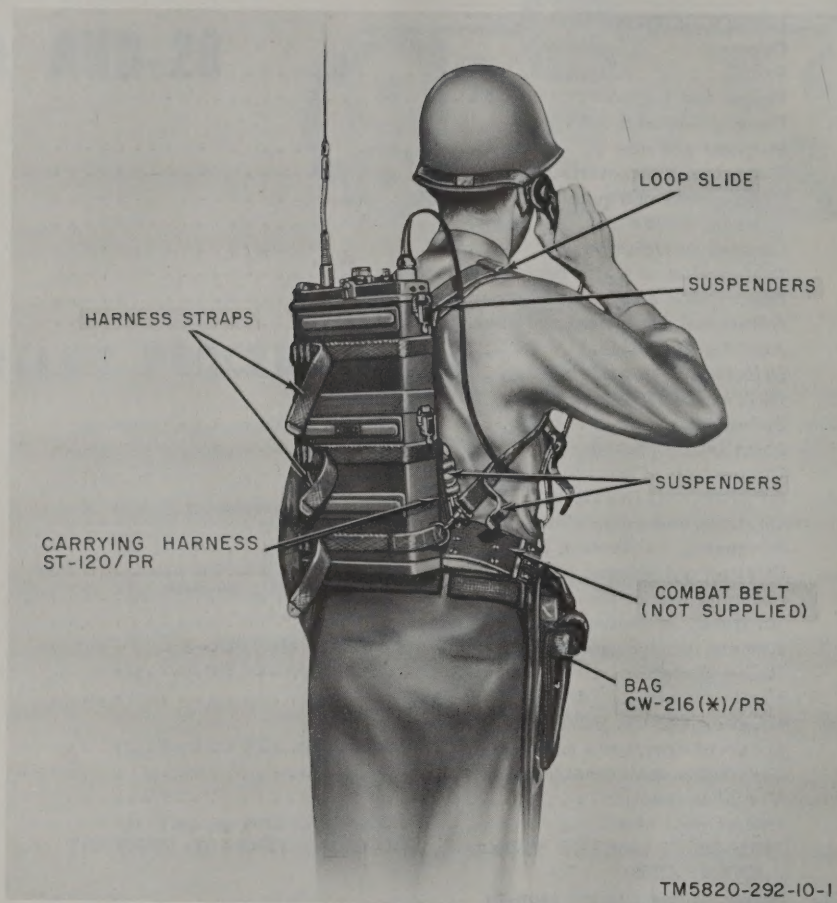


Figure 1. Typical pack-mounted radio set.

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. Scope

a. This manual describes Radio Sets AN/PRC-8, -8A, -9, -9A, -10, -10A, and -28 (fig. 1) and contains instructions for installation, operation, and operator's maintenance of the radio sets. Appendix I contains a list of references and appendix II contains a list of basic issue items.

b. Official nomenclature followed by (*) is used to indicate all models of the equipment item covered in this manual. Thus, Handset H-33(*)/PT represents Handsets H-33/PT, H-33A/PT, H-33B/PT, H-33C/PT, and H-33D/PT. Radio Receiver-Transmitter RT-174(*)/PRC-8 represents Radio Receiver-Transmitters RT-174/PRC-8 and RT-174A/PRC-8. Radio Receiver-Transmitter RT-175(*)/PRC-9 represents Radio Receiver-Transmitters RT-175/PRC-9 and RT-175A/PRC-9. Radio Receiver-Transmitter RT-176(*)/PRC-10 represents Radio Receiver-Transmitters RT-176/PRC-10 and RT-176A/PRC-10. Case CY-744(*)/PRC represents Cases CY-744/PRC and CY-744A/PRC. Antenna AT-271(*)/PRC represents Antennas AT-271/PRC and AT-271A/PRC. Antenna AT-272(*)/PRC represents Antennas AT-272/PRC and AT-272A/PRC. Bag CW-216(*)/PR represents Bags CW-216/PR and CW-216A/PR.

2. Forms and Records

a. *Unsatisfactory Equipment Reports.*

- (1) Fill out and forward DA Form 468 (Unsatisfactory Equipment Report)

to the Commanding Officer, U. S. Army Signal Materiel Support Agency, ATTN: SIGMS-ML, Fort Monmouth, N.J., as prescribed in AR 700-38.

- (2) Fill out and forward AF TO Form 29 (Unsatisfactory Report) to the Commander, Air Materiel Command, Wright-Patterson Air Force Base, Ohio, as prescribed in AF TO 00-35D-54.

b. *Report of Damaged or Improper Shipment.* Fill out and forward DD Form 6 (Report of Damaged or Improper Shipment) as prescribed in AR 700-58 (Army), Navy Shipping Guide, Article 1850-4 (Navy), and AFR 71-4 (Air Force).

c. *Preventive Maintenance Form.* Prepare DA Form 11-238 (fig. 13) (Maintenance Check List for Signal Equipment (Sound Equipment, Radio, Direction Finding, Radar, Carrier, Radiosonde, and Television) in accordance with the instructions on the form.

d. *Parts List Form.* Forward DA Form 2028 (Recommended Changes to DA Technical Manual Parts Lists or Supply Manual 7, 8, or 9) direct to the Commanding Officer, U. S. Army Signal Materiel Support Agency, ATTN: SIGMS-ML, Fort Monmouth, N. J., with comments on the basic issue items list (appendix II).

e. *Comments on Manual.* Forward all other comments on this publication direct to the Commanding Officer, U. S. Army Signal Materiel Support Agency, ATTN: SIGMS-PA2d, Fort Monmouth, N. J.

Section II. DESCRIPTION AND DATA

3. Purpose and Use

Radio Sets AN/PRC-8, -8A, -9, -9A, -10, -10A, and -28 are portable, lower-power, frequency-modulated (fm) receiver-trans-

mitters which can be pack-mounted (fig. 1) or installed in vehicles to provide voice communication over relatively short distances (para 4); they can also be used for

noming. Provision is made for remote operation and unattended relay operation.

Short antenna Antenna AT-272(*)/PRC; 3 feet long, semirigid steel tape.

4. Technical Characteristics

a. General.

Frequency range:

Radio Sets AN/
PRC-8 and -8A 20 to 28 mc.

Radio Sets AN/
PRC-9 and -9A 27 to 39 mc.

Radio Sets AN/
PRC-10 and -10A .. 38 to 55 mc.

Radio Set AN/
PRC-28 30 to 42 mc.

Type of modulation Frequency.

Type of transmission ... Voice.

Power Source:

Pack-mounted Battery BA-279/U (not supplied).

Vehicular Amplifier-Power Supply AM-598/U or AM-598A/U and 24-volt battery.

Calibration Calibration points provided throughout frequency range (except AN/PRC-28).

Types of antennas:

Long antenna Antenna AT-271(*)/PRC; 10 feet long, multisection whip type.

b. Transmitter.

Power output:

Radio Sets AN/
PRC-8 and -8A 1.2 watts.

Radio Sets AN/
PRC-9 and -9A 1 watt.

Radio Sets AN/
PRC-10 and -10A .. 0.9 watt.

Radio Set AN/
PRC-28 0.85 watt.

Distance range 5 miles (may vary from 3 to 12 miles, depending on antenna used and siting conditions).

c. Receiver.

Type Superheterodyne (single conversion).

Type of reception Frequency modulation.

5. Components and Running Spares

a. *Components* (fig. 2). The components of the radio set are listed in the following table. Battery BA-279/U is shown in Case CY-744(*)/PRC in figure 5.

Quantity				Component	Height (in.)	Depth (in.)	Width (in.)	Unit weight (lb)
AN/PRC-8 or -8A	AN/PRC-9 or -9A	AN/PRC-10 or -10A	AN/PRC-28					
1	1			Radio Receiver-Transmitter RT-174(*)/PRC-8.	9	3	10.5	9
				Radio Receiver-Transmitter RT-175(*)/PRC-9.	9	3	10.5	9

Quantity				Component	Height (in.)	Depth (in.)	Width (in.)	Unit weight (lb)
AN/PRC-8 or -8A	AN/PRC-9 or -9A	AN/PRC-10 or -10A	AN/PRC-28					
		1		Radio Receiver-Transmitter RT-176(*)/ PRC-10.	9	3	10.5	9
			1	Radio Receiver-Transmitter RT-339/PRC- 28	9	3	10.5	9
1	1	1	1	Case CY-744(*)/PRC	9.5	3	9.5	1.5
1	1	1	1	Battery BA-279/U (required but not supplied as part of radio set).	8.5	2.25	8.5	8
				Antenna AT-271(*)/PRC			113 lg	0.33
1	1	1	1	Antenna AT-272(*)/PRC			36.5 lg	0.5
1	1	1	1	Antenna Spring Section AB-129/PR	0.625	0.625	8 lg	2
1	1	1	1	Suspenders, Belt M1945	3	3	36 lg	0.5
1	1	1	1	Bag CW-216(*)/PR	3	5.25	18	0.5
1	1	1	1	Carrying Harness ST-120/PR or ST-120A/PR	2	9	14	0.75
1	1	1	1	Handset H-33(*)/PT	3.5	3.5	8	0.875
1	1	1	1	Set of running spares				2
2	2	2	2	TM 11-5820-292-10	10-1/2		8	

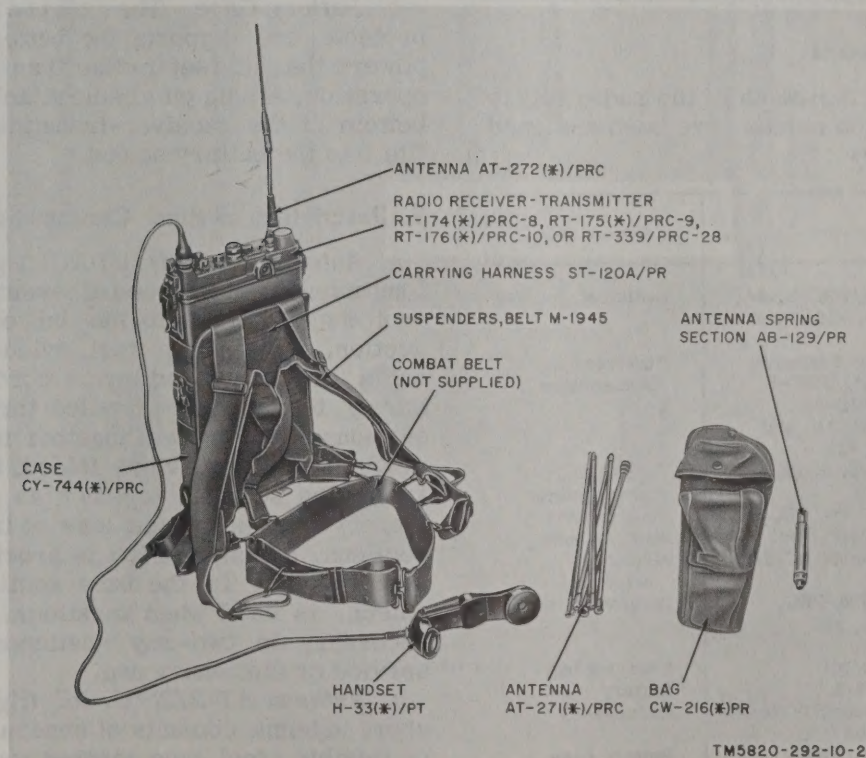


Figure 2. Components of radio set.

b. *Running Spares* (fig. 3). The running spares for the radio set are listed below.

(1) *AN/PRC-8, -9, and -10.*

Quantity	Item
1	Electron tube, 5A6
1	Electron tube, 1AD4
2	Electron tube, 5678
1	Electron tube, 5676
1	Electron tube, 5672
2	IF Amplifier AM-427/U
1	Lamp, dial, E8

(2) *AN/PRC-8A, -9A, -10A, and -28.*

Quantity	Item
1	Discriminator transformer
1	Electron tube, 5A6
1	Electron tube, 1AD4
1	Electron tube, 5678
1	Electron tube, 5672
1	Electron tube 6286
2	IF Amplifier AM-427A/U
1	Lamp, dial, E8
1	Pulse-Sweep Generator 0-325/U (not supplied with AN/PRC-28)

6. Common Names

A list of components of the radio sets to which common names have been assigned is given below.

Nomenclature	Common name
Radio Sets AN/PRC-8, 8A, -9, -9A, -10, -10A, and -28	Radio set
Radio Receiver-Transmitters RT-174(*)/PRC-8, RT-175(*)/PRC-9, RT-176(*)/PRC-10, and RT-339/PRC-28	Receiver-transmitter
Amplifier-Power Supply AM-598/U	Vehicular power supply
Antenna AT-271(*)/PRC	Long antenna
Antenna AT-272(*)/PRC	Short antenna
Antenna Equipment RC-292	Auxiliary antenna
Antennas AT-339/PRC, AT-340/PRC, and AT-249/GRD	Homing antenna
Bag CW-216(*)/PR	Carrying bag
Battery BA-279/U	Battery
Carrying Harness ST-120/PR or ST-120A/PR	Harness
Case CY-744(*)/PRC	Battery case
Handset H-33(*)/PT	Handset
Suspenders, Belt M-1945	Suspenders

7. General Description

The radio set consists of a receiver-transmitter, a battery case, and minor components (fig. 2). The receiver-transmitter is secured to the battery case by two spring clamps to form a watertight seal. Runners at the bottom of the battery case may be spread apart to support the radio set on a horizontal surface (fig. 4). Figure 5 shows the receiver-transmitter and battery cases disassembled.

8. Description of Major Components (fig. 4 and 5)

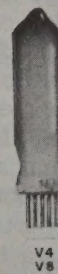
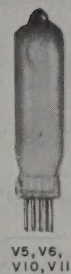
a. *Receiver-transmitter.* The receiver-transmitter consists of a control panel and chassis assembly. The assembly is housed in a case to which it is secured by two spring clamps located on the sides at the top of the case. The controls and connectors (fig. 10) are on the front panel. A battery plug is on the underside of the receiver-transmitter case.

b. *Battery Case.* The battery case protects and supports the battery which powers the radio set in other than vehicular operation. A plug on a cable attached to the bottom of the receiver-transmitter case fits into the battery socket.

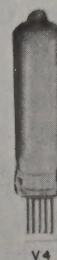
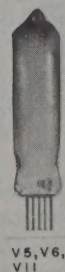
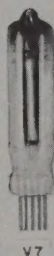
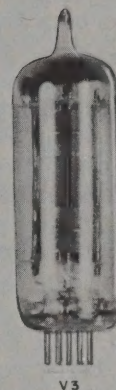
9. Description of Minor Components

a. *Antenna AT-271(*)/PRC* (fig. 2). The long antenna is composed of seven sections; each section fits into the end of a wider section. A stainless-steel, nylon-covered cable (or a braided nylon cord), under spring tension, is threaded through the sections to keep them together in the operating condition. When folded, the cable keeps the sections together as a group, thereby preventing the loss of individual sections. Spring tension is provided by a spiral spring in the base section. This antenna is used when maximum range is necessary in two-way unattended relay service or stationary use.

b. *Antenna AT-272(*)/PRC* (fig. 2). The short antenna consists of several lengths of flexible steel tape riveted together to form a 3-foot tapered whip antenna. A flexible elbow, which allows for bending at



A UNLETTERED MODELS



B A MODELS AND AN/PRC-28

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Figure 3. Running spares.

the base, is directly above the base. This antenna is used for general short-distance service. It can be folded into a small space without damage.

c. *Antenna Spring Section AB-129/PR* (fig. 2). Antenna Spring Section AB-129/PR is at the base of the long antenna in the operating condition. It protects the long antenna and the LONG ANT connector from damage caused by excessive bending or swaying of the antenna.

d. *Handset H-33(*)/PT* (fig. 2). The handset consists of a microphone and receiver section for transmitting and receiving signals, and a push-to-talk switch. The handset connects through a cable and 10-contact plug to the AUDIO connector on the control panel.

e. *Bag CW-216(*)/PR* (fig. 6). The carrying bag is normally suspended from the operator's combat belt. It contains the minor components (a through d above) and is used to store components not in use during operation.

f. *Suspenders, Belt M-1945* (fig. 2). The suspenders support the operator's combat belt and the harness to which the equipment is secured (g below). The suspenders are padded at the shoulders and are adjustable to fit the operator. A loop slide at the shoulder location on each suspender secures the harness.

g. *Carrying Harness ST-120/PR and ST-120A/PR*. The harness is fastened to the equipment by three adjustable straps. On Carrying Harness ST-120/PR (fig. 1), two rings are sewn into the bottom strap for securing the bottom of the harness to the suspenders. On Carrying Harness ST-120A/PR (fig. 2), furnished with later models of the radio set, two straps instead of two rings are attached to the bottom strap. Carrying Harness ST-120A/PR has an extra wide bottom strap. Two straps, at the top of both harnesses, support the entire pack and adjust its position when fastened in the two loop slides of the suspenders.

10. Additional Equipment Required

Battery BA-279/U (fig. 5) is not supplied as part of the radio set but is required for

use with the set. The life of the battery depends on climatic conditions and the amount of transmitting and receiving time. The average battery life under different rates of use is given in the following chart.

Rate of use (hours per day)	Average battery life	
	Days	Hours
2	15	30
4	7	28
8	3	24

11. Auxiliary Equipment

The following auxiliary equipment is used to extend the operation of the basic radio set.

a. *Amplifier-Power Supplies AM-598/U and AM-598A/U* (fig. 7). Amplifier-Power Supply AM-598/U and Amplifier-Power Supply AM-598A/U are vibrator-type regulated power supplies and audio amplifiers that adapt Radio Sets AN/PRC-8, -9, and -10 and Radio Sets AN/PRC-8A, -9A, and -10A to vehicular use. The AM-598/U (unless modified according to MWO 11-5055-1) may be used only with the unlettered model radio sets. The AM-598A/U is equipped with a selector switch and may be used with either the unlettered or the A model radio sets. There is no current modification which permits use of the AM-598/U or the AM-598A/U with Radio Set AN/PRC-28. Detailed information on the AM-598/U and the AM-598A/U is contained in TM 11-5055.

b. *Antennas AT-339/PRC, AT-340/PRC, and AT-249/GRD* (fig. 8). Three homing antennas may be used with the radio set. Antenna AT-340/PRC covers the frequency range from 20 to 38 megacycles (mc); Antenna AT-339/PRC covers the frequency range from 38 to 54.9 mc; Antenna AT-249/GRD covers the frequency range from 47 to 55.4 mc. These are loop antennas and all are similar to the one shown in figure 8. Detailed information on the homing antennas is contained in TM 11-5058.

c. *Antenna Equipment RC-292*. Antenna Equipment RC-292 is an elevated, wide-band, modified ground-plane antenna that can be used as an auxiliary antenna with

RECEIVER-
TRANSMITTER
CONTROL PANEL

DIAL LOCK

TOP CLAMP

RECEIVER-
TRANSMITTER
CASE

BOTTOM CLAMP

CASE
CY-744(*)/PRC

BATTERY CASE
RUNNERS
(EXTENDED)

NOTE:
IN RADIO SET AN/PRC-28
A PROTECTIVE CAP COVERS
THE DIAL LOCK CONTROL

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Figure 4. Receiver-transmitter and battery cases, assembled.

the radio set to increase the distance range. The antenna is mounted on a guyed 30-foot mast. Complete instructions for the antenna are contained in TM 11-5020.

d. Control Group AN/GRA-6.

(1) Control Group AN/GRA-6 (fig. 9) may be used to control two radio sets from a remote position as far as 2 miles away. It also provides for telephone communications (including ringing) between the radio sets position and a remote position. The AN/GRA-6 consists of Local Control C-434/GRC, Remote Control C-433/GRC, Handset H-33(*)/PT, and Bag CW-189/GR. During operation, Local Control C-434/GRC and Remote Control C-433/GRC are connected together by a pair of telephone wires (such as Wire WD-1/TT).

(2) Local Control C-434/GRC may be connected directly to the AUDIO connector on the control panel of one or two radio sets with cables provided at the rear of the unit.

Transmission and reception is possible over either set from a handset plugged into the AUDIO connector on the C-434/GRC front panel.

(3) Remote Control C-433/GRC may be used at a remote position as far as 2 miles from Local Control C-434/GRC. The combined switching actions of the C-434/GRC and the C-433/GRC make it possible to extend both power control and push-to-talk control to the C-433/GRC at the remote position. The AUDIO connector on the C-433/GRC front panel is for connecting a handset.

(4) For detailed information on Control Group AN/GRA-6, refer to TM 11-5038.

12. Differences in Models

Differences exist between the various models of the radio set. These differences are listed in the chart below.

Radio Sets AN/PRC-8A, -9A, and -10A	Radio Set AN/PRC-28	Radio Sets AN/PRC-8, -9, and -10
Frequency calibration is provided at 2.15-mc intervals.	Crystal-controlled operation. Dial calibration by operator not required.	Frequency calibration is provided at each whole number mc point on dial (1-mc intervals).
Motorboating noise is heard for a very short time after handset push-to-talk switch is pressed. Operator must wait for this noise to stop before talking.	Same as for Radio Sets AN/PRC-8A, -9A, and -10A.	No motorboating noise is heard. Operator may talk as soon as push-to-talk switch is pressed.
Operator's voice (sidetone) is heard in own handset receiver during transmission (except in relay operation).	Same as for Radio Sets AN/PRC-8A, -9A, and -10A.	No sidetone is heard.

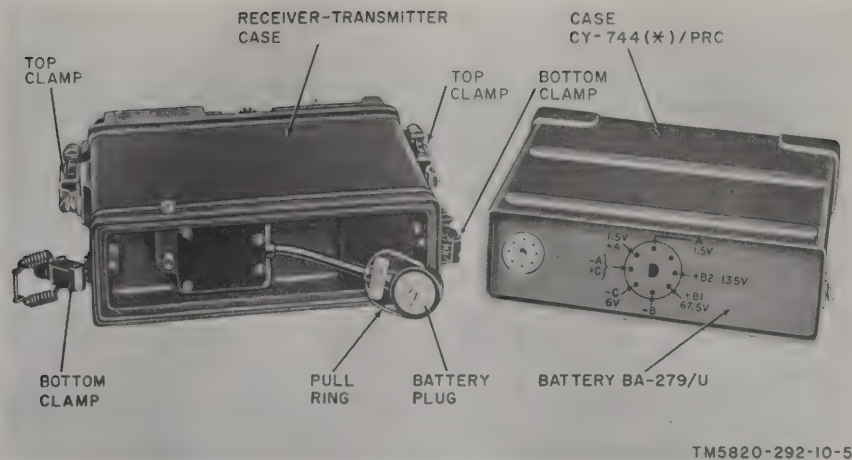


Figure 5. Receiver-transmitter and battery cases, disassembled.

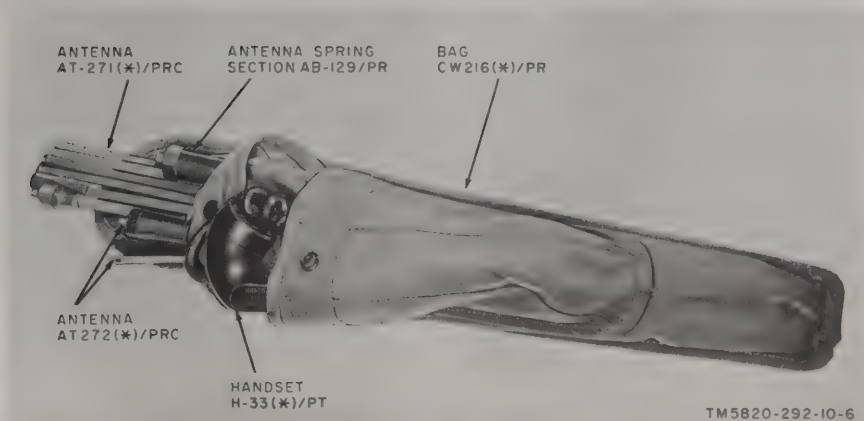
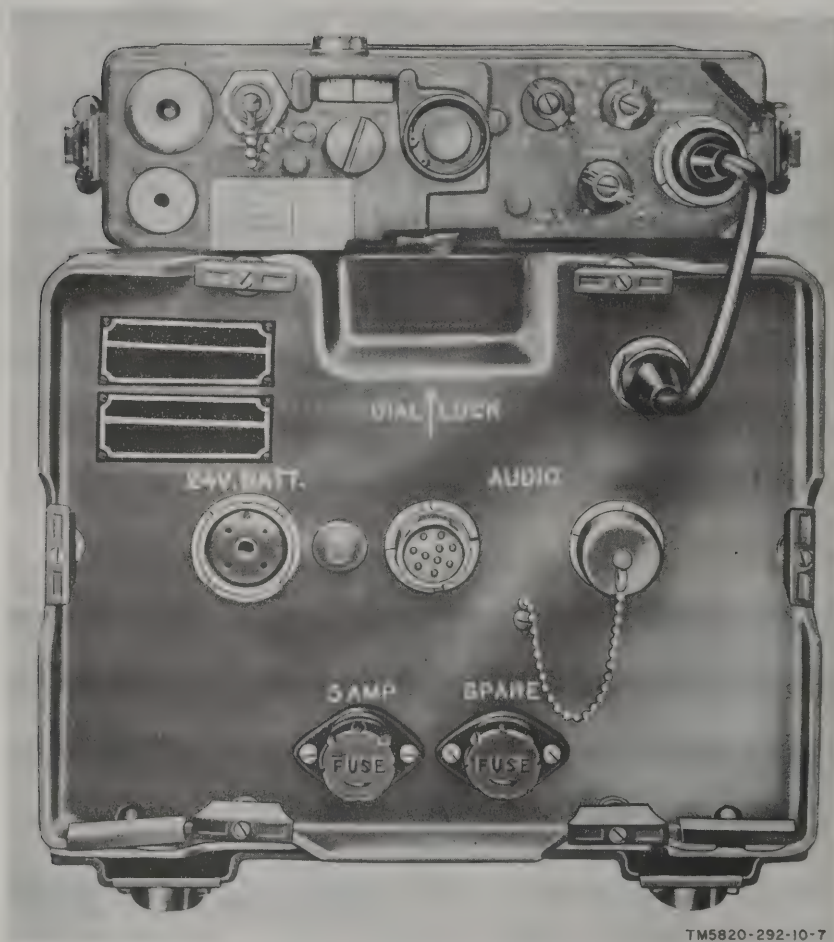


Figure 6. Carrying bag and minor components.



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Figure 7. Vehicular installation using Amplifier-Power Supply AM-598/U.

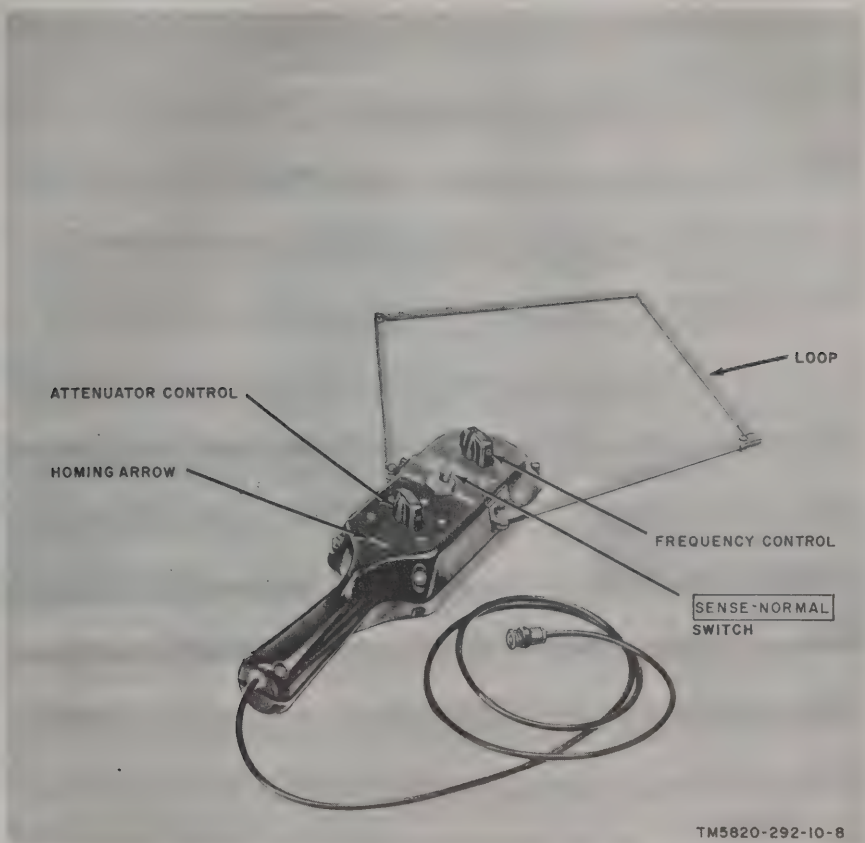
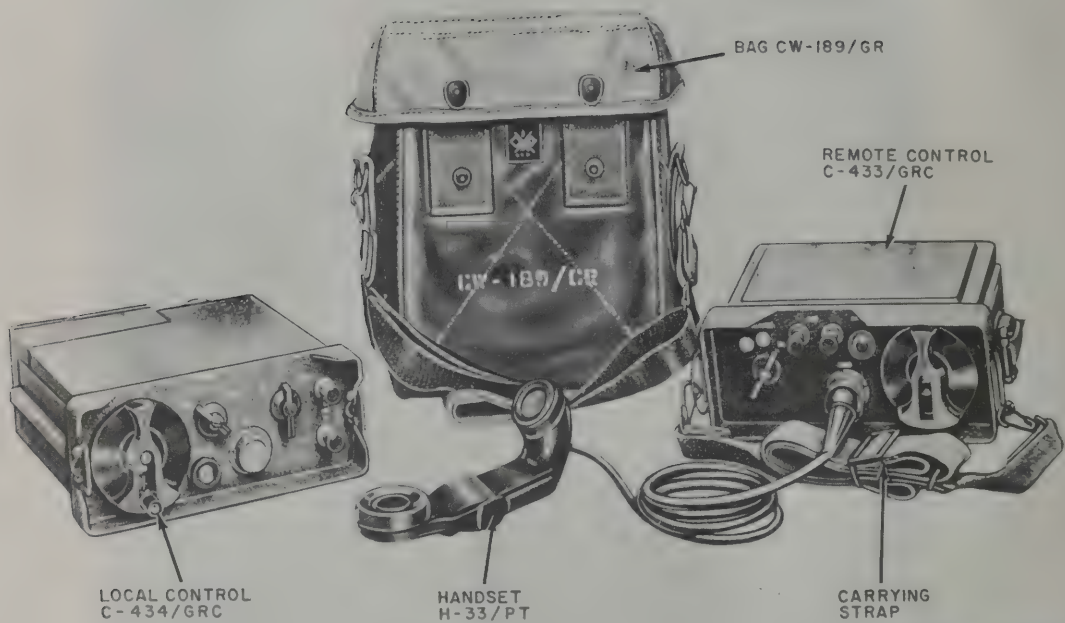


Figure 8. Typical homing antenna.



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Figure 9. Control Group AN/GRA-6.

CHAPTER 2

INSTALLATION

13. Siting

a. Because of the low power and high frequency used, the location of the equipment greatly affects its operating range. Normally, a line-of-sight range can be expected. That is, if the other station can be seen, satisfactory operation is probable. However, an intervening hill or tall building may hamper or prevent contact with the other station. Valleys, depressions, densely wooded areas, and low places are poor sites. Location on a hilltop or tower increases the line-of-sight distance, thereby increasing the range. Locating the equipment under a tree or close to a building may result in unsatisfactory operation because of absorption of the signal. Flat terrain is good. As a general rule, transmission over water is better than over land.

b. Operation from a moving vehicle can be satisfactory only when the ignition system is shielded to prevent radio interference. Where shielding is not used or is faulty, the vehicle engine will have to be stopped to prevent interference while operating. When operating from a vehicle, stay away from bridges, hospitals, large trees, and heavily traveled roads, if possible.

c. The antenna supplied are designed for pack-mounted operation. For semipermanent installations, the operating range may be increased and operation made more convenient by using Antenna Equipment RC-292. The range between two radio sets, each of which uses Antenna Equipment RC-292, is approximately 12 miles.

d. By using remote control operation (para 21), the operator can choose an effective site for the equipment and, at the same time, operate from a more desirable position within 2 miles of the equipment. The operator's presence at the radio set location would then be necessary only to change the battery, to change the frequency, or to move the radio set.

14. Installation Procedure

The following procedure is for pack-mounted installation of the radio set. Vehicular installation of the radio set is a higher-echelon function.

a. *Connecting Battery BA-279/U* (fig. 4 and 5).

Caution: Make certain that the POWER switch is OFF.

- (1) Stand the radio set on a bench or on the ground, with the control panel up, and release the bottom clamps (one on each side of the case) by pushing the topmost part of each clamp down and away from the case.
- (2) Lift the receiver-transmitter case off the battery case and set it down on its side with the battery plug facing the operator.
- (3) Hold the pull ring at the rear of the battery plug and insert the plug into the battery socket; be careful to position the key on the plug properly. Move the pull ring to the cable side of the plug and slide the battery against the bottom of the receiver-transmitter case.
- (4) Slide the battery case over the battery until it seats against the receiver-transmitter case.
- (5) To fasten the catches, hook the catch loops in the battery case hooks and push the catches up and toward the receiver-transmitter case until they snap against the sides.

Caution: Remove the battery when the equipment is not to be used for 1 day or more.

b. *Placing Radio Set in Carrying Harness ST-120/PR or ST-120A/PR* (fig. 1 and 2).

- (1) Spread out the harness with the stenciled side down and the wide

straps to the right. Untwist the narrow straps and lay each one down flat.

- (2) Place the radio set on its back against the harness with the control panel toward the wide straps and the AUDIO connector to the right. Adjust the position of the radio set so that the middle narrow strap is just below the battery case clamps.
- (3) Fasten each narrow strap by feeding the metal-tipped strap from below through the center slot in the buckle and then down through the end slot in the buckle.
- (4) The assembly now is ready to be fastened to the suspenders.

c. Attaching Harness to Suspenders.

- (1) Fasten the suspender snaphooks to the combat belt; the single snaphook ends fasten to the rear of the combat belt and one snaphook of each of the double snaphook ends fastens to the front. Put on the suspender and combat belt assembly and adjust the suspenders to fit.
- (2) Remove the assembled suspenders and combat belt and fasten the wide harness straps through the loop slides, one on each suspender, so that the radio set carries well up on the back of the operator. Cloth guides on each suspender permit folding up the excess length of the wide straps.
- (3) On *Carrying Harness ST-120/PR* (fig. 1), fasten the remaining snaphooks of the double snaphook ends ((1) above) of the suspenders to the rings on each side of the bottom strap of the harness.
- (4) On *Carrying Harness ST-120A/PR* (fig. 2), fasten the remaining snaphooks of the double snaphook ends ((1) above) of the suspenders to the combat belt. Adjust the lengths of the two short straps on the bottom strap of the harness by pulling them down and around toward the front of the combat belt and fasten their snaphooks to the third or fourth eyelet (as necessary) from the bot-

tom of the belt.

- (5) Place the pack on the back and adjust for the most comfort to the operator.

Note. The combat belt must be tight so that it will not work up the operator's back.

d. Connecting Antenna AT-272()/PRC.*

Use the short antenna when maximum range is not required. Screw the threaded end of the short antenna into the connector marked SHORT ANT. If necessary, bend the base of the antenna so that the main portion of the antenna is vertical.

e. Connecting Antenna AT-271()/PRC.*

Use the long antenna when maximum range is required and a semipermanent installation is not practicable. Screw Antenna Spring Section AB-129/PR into the LONG ANT connector on the control panel. Extend the long antenna by holding the base section (the heaviest section), and carefully whipping it outward. If all the sections of the antenna are not secure, repeat the above procedure or insert the sections individually by hand. After extending the antenna, screw it into Antenna Spring Section AB-129/PR.

f. Connecting Handset H-33()/PT.* Insert the plug on the handset cable into the AUDIO connector on the control panel. Apply light pressure and turn the plug until it drops in the guides. Push and turn clockwise to secure the plug.

g. Attaching Bag CW-216()/PR* (fig. 1). Attach the bag to the combat belt where it is convenient to reach.

15. Connection of Homing Antenna (fig. 8)

Use Antenna AT-340/PRC with Radio Sets AN/PRC-8, -8A, -9, and -9A; use Antenna AT-339/PRC with Radio Sets AN/PRC-10 and -10A. Antenna AT-249/GRD may be used with Radio Sets AN/PRC-10 and -10A for frequencies from 47 to 54.9 mc.

a. Extend the two arms of the homing antenna as far as possible. Fit the two sections together to complete the diamond form.

b. Connect the plug at the end of the homing antenna cord to the AUX ANT connector of the radio set.

OPERATING INSTRUCTIONS

16. Controls and Connectors
(fig. 10)

Control	Function
POWER switch	Four-position switch.
	<i>Position</i> <i>Function</i>
	ON Turns power on.
	OFF Turns power off.
	REMOTE Provides for remote operation with Control Group AN/GRA-6.
	CAL & DIAL LITE Provides for frequency calibration of radio set. Switch spring returned to ON position.
TUNING knob	Tunes radio set to desired frequency.
VOL control	Adjusts sound output from receiver.
SQUELCH control	Eliminates rushing noise when no signal is being received; noise squelch is made inoperative in OFF position.
AUDIO connector	Provides connections for audio accessories, remote control, and relay equipment.
LONG ANT connector	Mount and connection for long antenna.
SHORT ANT connector	Mount and connection for short antenna.
AUX ANT connector	Connection for coaxial line from homing or auxiliary antennas.
LITE CAP	Holds dial lamp in place.
POINTER ADJUST knob	Varies position of pointer on TUNING DIAL; provides accurate dial frequency calibration.
DIAL LOCK	Locks TUNING knob; prevents accidental operating frequency change.
Push-to-talk button (on handset)	When pressed, places radio set in transmit condition.

Note. In Radio Set AN/PRC-28, the TUNING and DIAL LOCK controls are screwdriver adjustments that are accessible only after caps on the control panel are removed. There is no pointer adjust mechanism on the AN/PRG-28.

17. Frequency Calibration and Tuning
Procedure
(fig. 10)

The radio set must be calibrated to insure accurate tuning. Perform the procedures given in a through f below before proceeding to the starting procedure.

Note. When adjusted, Radio Set AN/PRC-28 is fixed-tuned. It cannot be tuned to a different frequency unless the receiver-transmitter chassis is taken out of its case and a different crystal inserted. Once the radio set has been aligned to a channel frequency, it cannot be changed by the operator.

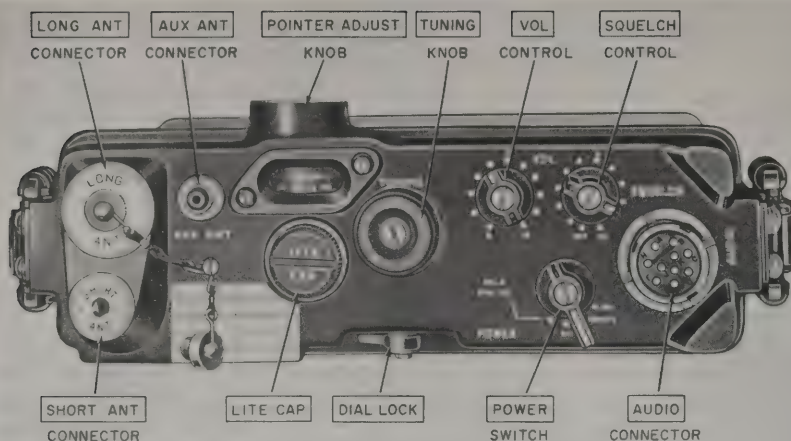
a. Unlock the TUNING knob by turning the DIAL LOCK to the left. Turn the TUNING knob until the dial pointer is at the frequency calibration point nearest the desired operating frequency. (In Radio Sets AN/PRC-8, -9, and -10, frequency calibration points are at each megacycle

point on the dial. In Radio Sets AN/PRC-8A, -9A, and 10A, frequency calibration points are at multiples of 2.15 mc and are indicated by red marks on the dial. (For example, four of the calibration points on Radio Set AN/PRC-10A are at 38.70, 40.85, 43.00, and 45.15 mc.) To operate at 43.6 mc, calibrate the dial of Radio Set AN/PRC-10 at 44 mc; calibrate the dial of Radio Set AN/PRC-10A at 43 mc.

b. Turn the VOL control to 10.

c. Turn the SQUELCH control to OFF.

d. Hold the POWER switch in the CAL & DIAL LITE position and slowly move the dial above and below the calibration point while listening on the handset. (Cradle the handset between the ear and shoulder so that both hands are free for this operation.) As the dial is moved, a high-pitched whistle is heard with the pitch dropping



NOTE:
IN RADIO SET AN/PRC-28 PROTECTIVE
CAPS COVER THE TUNING AND DIAL LOCK
CONTROLS; THERE IS NO POINTER ADJUST
MECHANISM

TM5820-292-10-10

Figure 10. Receiver-transmitter control panel.

until the whistle is inaudible (zero beat) and then rising again. Set the dial at the point where a zero beat is obtained. Release the POWER switch to ON. During the warmup period, occasional recalibration may be required.

e. Vary the POINTER ADJUST knob until the dial pointer is at the nearest frequency calibration point on the dial. This calibrates the radio set for those frequencies close to this calibration point.

f. Turn the TUNING knob until the desired operating frequency appears opposite the pointer. Lock the TUNING knob by turning the DIAL LOCK clockwise.

18. Starting Procedure (fig. 10)

Make certain that the frequency calibration and tuning procedure described in paragraph 17 has been performed before the starting procedure is begun.

a. Initial Settings.

- (1) Turn the SQUELCH control to OFF.
- (2) Turn the VOL control full to the right.
- (3) Turn the POWER switch to ON.

b. Volume and Squelch Adjustments. When the SQUELCH control is at OFF, a rushing noise is heard in the handset (or other audio accessory). If the sound is too loud, reduce the volume by turning the VOL control to the left until a desirable level of sound is obtained. Slowly turn the SQUELCH control clockwise until the rushing noise stops. *Do not turn the control more than necessary to stop the rushing noise as this reduces the ability of the receiver to pick up weak signals.*

c. Reception. When the POWER switch is at ON, the radio set is in the receive condition and will pick up fm signals that are on its frequency.

d. Transmission. Press the push-to-talk switch on the handset (or other transmitting audio accessory) and talk into the microphone. Release the push-to-talk switch to listen.

Note. On the A models and the AN/PRC-28, a motorboating sound is heard for a very short time after the push-to-talk switch is pressed. Wait for this sound to stop before talking into the microphone. You will hear your voice in the handset receiver on the A models and the AN/PRC-28.

19. Stopping Procedure (fig. 10)

Turn the POWER switch to OFF.

Caution: If the radio set is not to be used for a day or more, remove the battery from the battery case to prevent case corrosion.

20. Antijamming Procedures

If the receiver is being jammed, notify your superior officer immediately. *Do not stop operating.* Follow the instructions given below, in the order presented, until intelligible communication is reestablished.

a. Vary the TUNING knob first to one side, and then to the other side of the assigned frequency. It often is possible to obtain better reception on one side or the other.

Note. The information in a above does not apply to Radio Set AN/PRC-28.

b. Turn the VOL control fully to the right. This may cause the jamming signal to saturate the headphones, or loudspeaker, and permit a degree of read-through of the desired signal.

c. Turn the SQUELCH control to OFF.

d. Slowly change the position of the antenna from vertical to horizontal. Locate the set so that a jeep, truck, tank, tree, earthen mound, or some other obstruction is between the source of the jamming signal and the radio set.

e. The enemy may be uncertain as to his jamming success and may move to another frequency. *Continue to operate.* Communication then will be reestablished. Also, continued operation on the frequency that is being jammed keeps the enemy jamming signal at that frequency. Another set then may be operated on another frequency without interference while the jamming signal is kept at what the enemy believes is your active communicating frequency.

f. Request a change in frequency and call sign.

21. Remote Control Operation Using Control Group AN/GRA-6 (fig. 11)

a. *Telephone Operation.* Telephone operation with Control Group AN/GRA-6

provides two-way communication over a telephone line between operators at the radio set position and at the remote position. This enables the operator at the remote position to advise the operator at the radio set position whether remote control of the radio set is satisfactory. For telephone operation, proceed as follows:

- (1) At Local Control C-434/GRC, set the REMOTE switch to TEL ONLY and set the LOCAL switch to TEL.
- (2) At Remote Control C-433/GRC, set the SELECTOR switch to TEL.
- (3) Crank the ringing generator handle at either position to signal the other operator.
- (4) Press the push-to-talk switch on the handset at either position and talk into the microphone.
- (5) Release the push-to-talk switch to listen.

b. Operation of Radio Set From Local Control C-434/GRC.

- (1) Place the radio set in operation (para 18).
- (2) Turn the REMOTE switch on the C-434/GRC to SET 1 & 2.
- (3) To transmit, hold the LOCAL switch (spring-returned) on the C-434/GRC at the SET 1 position, press the push-to-talk switch on the handset, and talk into the microphone.
- (4) Release the LOCAL switch (spring-returned) on the C-434/GRC to listen.

Caution: Do not crank the ringing generator handle at either the remote or radio set position except for telephone operation (a above). Turn the POWER switch to OFF when the radio set is not in use.

c. Operation of Radio Set From Remote Control C-433/GRC.

- (1) Place the radio set in operation (para 18).
- (2) Set the POWER switch on the radio set to REMOTE.
- (3) At Local Control C-434/GRC, set the REMOTE switch to SET 1.
- (4) At Remote Control C-433/GRC, set the SELECTOR switch to the left write-in position.

- (5) Momentarily press the push-to-talk switch on the handset at Remote Control C-433/GRC. This turns power on in the radio set.

Note. If the radio set does not turn on, reverse the leads at L1 and L2 of the C-433/GRC and again press the push-to-talk switch momentarily.

- (6) Press the push-to-talk switch on the handset to talk and release the switch to listen.
- (7) To turn off the radio set from Remote Control C-433/GRC, turn the SELECTOR switch to the right write-in position and momentarily press the push-to-talk switch on the handset.

d. Remote Control Operation Details.

For detailed information on remote control operation using Control Group AN/GRA-6, refer to TM 11-5038.

22. Relay Operation

(fig. 12)

Note. When two sets are connected for relay operation, the overall range is almost twice the range of an individual set.

Two radio sets are shown connected as a relay station with Electrical Special Purpose Cable Assembly CX-1961/U in figure 12. The handset near radio set No. 2 is used for monitoring that radio set; the handset near radio set No. 3 is used for monitoring that radio set.

- a. Adjust radio set No. 2 to the frequency of radio set No. 1.
- b. Adjust radio set No. 3 to the frequency of radio set No. 4.

Note. The frequency settings of radio set No. 2 and radio set No. 3 must be spaced at least 3 mc to avoid interference.

- c. Set the VOL control of radio sets No. 2 and No. 3 for a desirable level of sound. *Do not set the sound level too high.*

d. Set the SQUELCH controls of radio sets No. 2 and No. 3 slightly beyond the position which just squelches receiver noise. (This setting is necessary to prevent chattering of the squelch relays in the radio sets.)

- e. Check the relay station for proper operation. Monitor transmissions with the

handsets at the relay station. For proper operation:

- (1) A transmission from radio set No. 1 is received by radio set No. 2 and retransmitted by radio set No. 3 to radio set No. 4.
- (2) A transmission from radio set No. 4 is received by radio set No. 3 and retransmitted by radio set No. 2 to radio set No. 1.

23. Homing Operation (Direction Finding)

a. Connect the proper homing antenna for the radio set (para 15).

b. Place the radio set in operation (para 18), except keep the SQUELCH control at OFF.

c. Set the SENSE-NORMAL switch of the homing antenna to NORMAL.

d. Turn the attenuator control (ATTEN knob on Antenna AT-249/GRD) to 1.

e. Turn the frequency control knob (TUNE knob on Antenna AT-249/GRD) to the desired operating frequency. (This is an approximate setting.)

f. Grasp the homing antenna by its handle and hold it above the head in an upright position.

- (1) Rotate the loop until a maximum signal is heard in the handset.
- (2) Adjust the frequency control knob on the homing antenna to peak the response to the signal.
- (3) If equal signal strength is obtained in all directions, set the attenuator control on the homing antenna to position 2, 3, or 4, as necessary, to provide maximum and minimum signal indications.

Note. Maximum signal is indicated in the handset by minimum rushing noise when an unmodulated signal is received and by maximum voice signal when a voice signal is received.

g. Turn the loop a half turn from the position of maximum signal obtained as instructed in *f* above.

h. Set the SENSE-NORMAL switch to SENSE and note the signal strength.

i. Turn the loop a half turn from the position obtained as instructed in *g* above and note the signal strength.

j. If signals of equal strength are obtained as instructed in *h* and *i* above, set the attenuator control to position 2, 3, or 4 to obtain a weaker signal. Then repeat the procedures given in *h* and *i* above until signals of unequal strength are obtained.

k. Turn the loop in the direction of the stronger signal. The arrow on the homing antenna control box (or on the loop) now points toward the transmitter.

l. Set the SENSE-NORMAL switch to

NORMAL. Turn the loop a quarter turn to obtain a null in the direction of the transmitter. Use the null for proceeding toward the transmitter. If the null is broad, turn the loop back and forth to find the center of the null.

Note. A null is indicated in the handset by maximum rushing noise when an unmodulated signal is received and minimum voice signal when a voice signal is received.

m. For detailed information on the use of the homing antenna, refer to TM 11-5058.

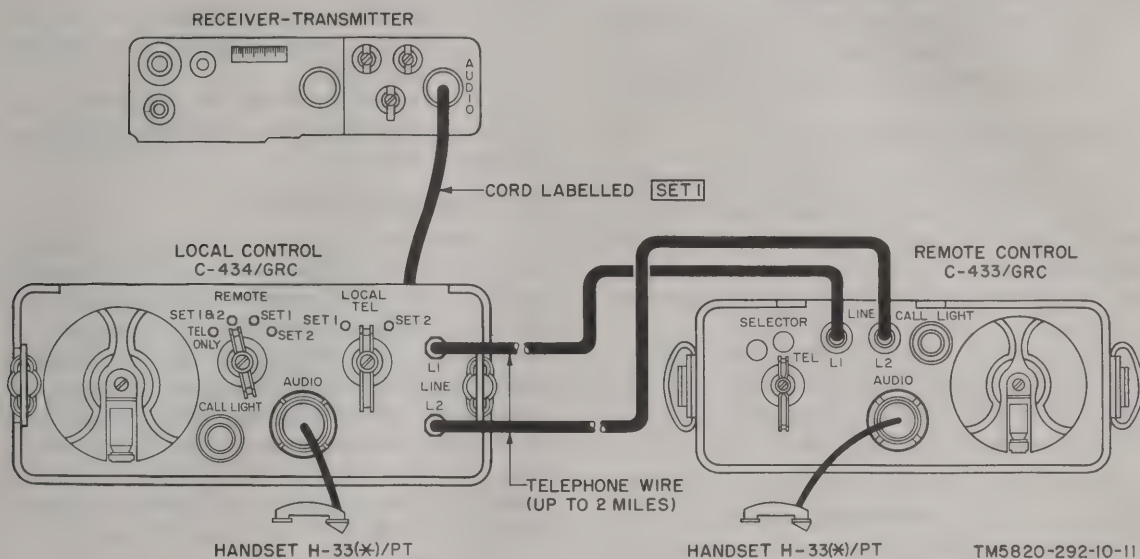


Figure 11. Control Group AN/GRA-6, controls and connections.

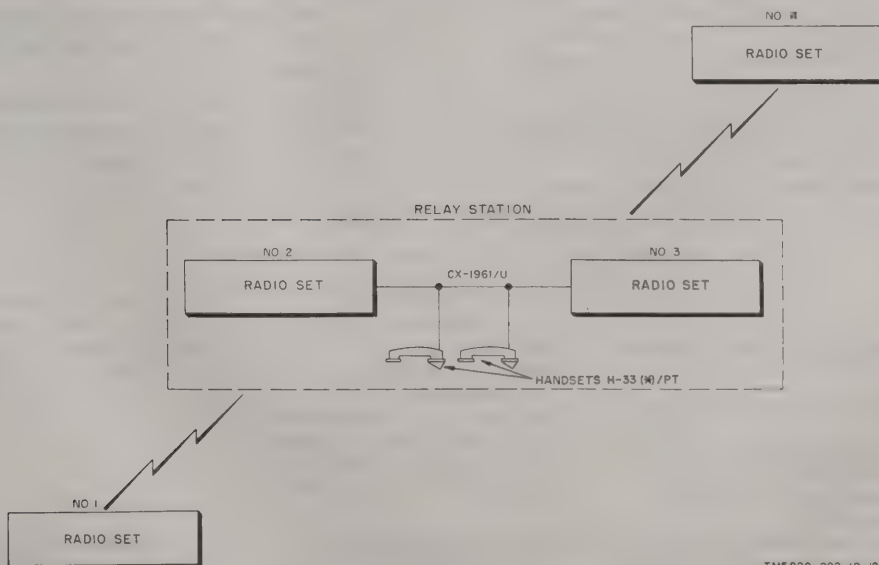


Figure 12. Radio sets connected for relay operation.

CHAPTER 4

MAINTENANCE INSTRUCTIONS

24. Scope of Operator's Maintenance

a. The following is a list of maintenance duties normally performed by the operator of the radio set. These procedures do not require special tools or test equipment.

b. Operator's maintenance for the radio set consists of the following:

- (1) Preventive maintenance (para 25).
- (2) Visual inspection (para 26).
- (3) Operational checklist (para 27).

25. Preventive Maintenance

a. *DA Form 11-238.* DA Form 11-238 (fig. 13) is a preventive maintenance checklist to be used by the operator. Items not applicable to the radio set are lined out. Instructions for the use of the form appear on the form.

b. *Items.* The information in the following chart is supplementary to DA Form 11-238. The item numbers correspond to the ITEM numbers on the form.

Item	Maintenance procedures
2	Use a clean cloth to remove dust, dirt, moisture and grease from the antennas, handset, and front-panel controls.
3	All knobs must work smoothly and be tight on their shafts. Check the spring-return action of the POWER switch in the CAL & DIAL LITE position.
7	Inspect the handset cable particularly for breaks in insulation at both the connector and handset ends.
12	Inspect Battery BA-279/U for leakage.

26. Visual Inspection

a. When the equipment fails to operate properly, turn the POWER switch to OFF and check the items listed below. *Do not check any item with power on.*

- (1) Incorrect setting of switches and controls.
- (2) Handset cable, battery cable, or antenna disconnected or poorly connected.

b. If the above checks do not locate the trouble, proceed to the operational checklist (para 27).

27. Operational Checklist

a. *General.* The operational checklist will help the operator locate the trouble quickly. Use the corrective measures listed to correct troubles. If no corrective measures are listed or the corrective measures suggested do not restore normal equipment performance, troubleshooting by a higher echelon repairman is required. Note on the repair tag what corrective measures were taken and how the equipment performed at the time of failure.

b. *Procedure.*

- (1) Connect the handset to the AUDIO connector and install the antenna in the proper connector on the control panel.
- (2) Turn the SQUELCH control to OFF.
- (3) Turn the VOL control to 10.
- (4) Perform the steps given in c below, in the order listed.

c. *Checklist.*

Step	Action	Normal indication	Corrective measures
1	Turn POWER switch on and hold at CAL & DIAL LITE.	Dial lamp lights. Rushing noise is heard in handset receiver.	Check handset by substitution. Check battery by substitution.
2	Release POWER switch to ON.	Dial lamp out. Rushing noise still heard in handset receiver.	
3	With no incoming signal, turn SQUELCH control to point where rushing noise just disappears.	No rushing noise in handset receiver with no incoming signal.	
4	Press push-to-talk switch and talk into handset microphone.	Rushing noise disappears. Sidetone heard in handset	Check handset by substitution. Check battery by substitution.

Step	Action	Normal indication	Corrective measures
5	<p>(On A models and AN/PRC-28, wait for motorboating sound to stop before talking.)</p> <p>Turn POWER switch to OFF.</p>	<p>receiver on A models and AN/PRC-28. The voice signal is received loud and clear by a nearby radio set of the same type, and tuned to the same frequency.</p> <p>Power is turned off. No rushing noise in handset receiver.</p>	<p>Remove battery plug from battery to remove power.</p>

LEGEND for marking conditions:		DAILY CONDITION FOR MONTH OF												CONDITION						
Satisfactory, ✓ Adjustment, Repair or Replacement required, X. Defect corrected, ⊗.		JULY 1961																		
NO	DAILY ITEM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	20	30	ECH- ELON
1.	COMPLETENESS AND GENERAL CONDITION OF EQUIPMENT. (Transmitter, receiver, carrying case, wire, cables, microphone, tubes, spare parts, technical manual).	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
2.	CLEAN DIRT AND MOISTURE FROM ANTENNA, MICROPHONE, HEADSET, PLUGS, COMPONENT PANELS. PARA 25b	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
3.	INSPECT CONTROLS FOR NORMAL OPERATION. TAP CONTROLS LIGHTLY FOR EVIDENCE OF CUT-OUT FROM LOOSE CONTACTS. PARA 25b	⊗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
4.	CHECK FOR NORMAL OPERATION OF EQUIPMENT. BE ALERT FOR UNUSUAL OPERATION OR CONDITION.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
WEEKLY		ADDITIONAL ITEMS FOR 2D AND 3D ECHELON INSPECTIONS																		
CONDITION EACH WEEK		1ST	2D	3D	4TH	5TH	6TH	7TH	8TH	9TH	10TH	11TH	12TH	13TH	14TH	15TH	16TH	20TH	30TH	ECH- ELON
5.	CLEAN AND TIGHTEN EXTERIORS OF CASES, MOUNTS, ANTENNA .	✓																		
6.	INSPECT CASES, MOUNTS, ANTENNA AND EXPOSED METAL SURFACES FOR RUST, CORROSION.	✓																		
7.	INSPECT CORDS, CABLE, WIRE, AND EXPOSED METAL SURFACES FOR CUTS, KINKS, BREAKS, FRAYING, UNDUCE STRAIN. PARA 25b	✓																		
8.	CHECK ANTENNA AND EXPOSED METAL SURFACES FOR AND EXPOSED METAL SURFACES DAMAGE.	✓																		
9.	INSPECT CANVAS AND LEATHER ITEMS FOR MILDEW, TEARS, FRAYING.	✓																		
10.	INSPECT ACCESSIBLE ITEMS FOR LOOSENESS: SWITCHES, KNOBS, AND EXPOSED METAL SURFACES CONNECTORS, AND EXPOSED METAL SURFACES TRANSFORMERS, AND EXPOSED METAL SURFACES PILOT LIGHT, AND EXPOSED METAL SURFACES ETC.	⊗																		
11.	CLEAN AND/OR INSPECT AND EXPOSED METAL SURFACES BRASS NAME PLATES, DIAL AND EXPOSED METAL SURFACES WINDOW.	✓																		
12.	INSPECT AND EXPOSED METAL SURFACES BATTERIES FOR DIRT, LOOSE TERMINALS, AND EXPOSED METAL SURFACES DAMAGED CASES, AND EXPOSED METAL SURFACES FOR LEAKAGE. PARA 25b	✓																		
ADDITIONAL ITEMS FOR 2D AND 3D ECHELON INSPECTIONS		CONDITION																		
13.	AND EXPOSED METAL SURFACES																			
14.	AND EXPOSED METAL SURFACES																			

2

CONTINUED ON PAGE 4

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Figure 13. DA Form 11-238, pages 2 and 3.

CHAPTER 5

SHIPMENT, LIMITED STORAGE, AND DEMOLITION TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED STORAGE

28. Disassembly of Equipment

- a. Disconnect the handset from the AUDIO connector on the control panel.
- b. Disconnect the antenna from its antenna connector on the front panel.
- c. Place the handset and all antenna parts in the carrying bag.
- d. Release and remove the receiver-transmitter case from the battery case.

e. Unplug the battery cable and remove the battery.

f. Replace and secure the receiver-transmitter case to the battery case.

29. Repackaging for Shipment or Limited Storage

Repackaging the radio is performed at a higher echelon.

Section II. DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

30. Authority for Demolition

Demolition of the equipment will be accomplished only upon order of the commander. The time available will determine the methods to be used in most instances when demolition of equipment is undertaken. The tactical situation also will determine how the demolition order will be carried out. The demolition procedures outlined in paragraph 31 will be used to prevent further use of equipment.

31. Methods of Demolition

Unlatch the top clamps on the receiver-transmitter case (fig. 4) and pull out the receiver-transmitter. Use any or all of the methods of demolition given below.

a. *Smash.* Smash the handset, battery, and parts inside the receiver-transmitter; use sledges, axes, handaxes, pickaxes, hammers, crowbars, or heavy tools.

b. *Cut.* Cut the handset cord, harness, suspenders, and wiring; use axes, handaxes, or machetes.

Warning: Be extremely careful with explosives and incendiary devices. Use these items only when the need is urgent.

c. *Burn.* Burn the cords, technical manuals, and parts inside the receiver-transmitter; use gasoline, kerosene, oil, flame-throwers, or incendiary grenades.

d. *Explode.* If explosives are necessary, use firearms, grenades, or TNT.

e. *Dispose.* Bury or scatter the destroyed parts in slit trenches or foxholes or throw them into streams.

APPENDIX I

REFERENCES

Following is a list of references applicable and available to the operator of Radio Sets AN/PRC-8, -8A, -9, -9A, -10, -10A, and -28.

SIG 7 & 8 AN/PRC-28

Organizational Maintenance Allowances and Field and Depot Maintenance Stockage Guide for Radio Set AN/PRC-28

TM 11-5020

Antenna Equipment RC-292

TM 11-5038

Control Group AN/GRA-6

TM 11-5055

Amplifier-Power Supplies AM-598/U and AM-598A/U

TM 11-5058

Antennas AT-249/GRD. AT-339/PRC, and AT-340/PRC

APPENDIX II

BASIC ISSUES ITEMS LIST

Section I. INTRODUCTION

1. General

This appendix lists items supplied for initial operation and for running spares. The list includes tools, accessories, parts, and material issued as *part of* the major end item. The list includes all items authorized for basic operator maintenance of the equipment. End items of equipment are issued on the basis of allowances prescribed in equipment authorization tables and other documents that are a basis for requisitioning.

2. Columns

a. Source, Maintenance, and Recoverability Code. Not used.

b. Federal Stock Number. This column lists the 11-digit Federal stock number.

c. Designation by Model. The dagger (†) indicates the equipment or model in which the part is used and further, by its position, designates the reference symbol in which the time is identified, and/or the quantity used in each model where the quantity varies.

d. Description. Nomenclature or the standard item name and brief identifying data for each item are listed in this col-

umn. When requisitioning, enter the nomenclature and description.

e. Unit of Issue. Not used.

f. Expendability. Nonexpendable items are indicated by NX.

g. Quantity Authorized. Under "Items Comprising an Operable Equipment," the column lists the quantity of items supplied for the initial operation of the equipment. Under "Running Spares and Accessory Items," the quantities listed are those issued initially with the equipment as spare parts.

h. Illustrations. The "Item No." column lists the reference designations that appear on the part in the equipment. These same designations are also used on any illustrations of the equipment. The numbers in the "Figure No." column refer to the illustrations where the part is shown.

3. Battery

The battery shown is used with the equipment but is not considered part of the equipment. The battery will not be pre-shipped automatically but is to be requisitioned in quantities necessary for the particular organization, in accordance with SB 11-6.

AN/PUC-B, 8A, 9, 9A, 10, 10A

(f) SOURCE MAINTENANCE AND RECOVERABILITY CODE	(g) FEDERAL STOCK NUMBER	(h) DESIGNATION BY MODL	(i) DESCRIPTION	(j) UNIT OF ISSUE	(k) EXPENDABILITY	(l) QUANTITY AUTHORIZED	(m) ILLUSTRATIONS	
							FIGURE NO	ITEM NO
			AN/PRC-8, 8A, 9, 9A, 10, 10A (continued)					
	8465-163-9539	+	SUSPENDER, BELT W 1945; T/carrying radio set			1	2	
			RADIO RECEIVER-TRANSMITTERS RT-174/PRC-8, RT-174A/PRC-8					
			NOTE: Model column 1 refers to RT-174/PRC-8; Column 2 refers to RT-174A/PRC-8					
	5820-243-0700	+	AMPLIFIER, INTERMEDIATE FREQUENCY AM 427.0; AM 427A7U; 4300 kc \pm 4 kc; SigC dwg No. SC-DL-91284			5		U101 thru U105 U101 thru U104
			GENERATOR PULSE-SWEEP 0-325/U;					
	5820-569-0263	+	CRYSTAL UNIT CR-18/U; quartz; 1000 kc			1		Y1
	5995-160-4029	+	CRYSTAL UNIT CR-18/U; quartz; 4300 kc			1		Y2
	5995-160-4026	+	CRYSTAL UNIT CR-18/U; quartz; 2150 kc			1		Y1
	5995-667-2724	+	ELECTRON TUBE: MIL type JAN 1AD4			2		V4 V8 V4
	5960-188-0829	+	ELECTRON TUBE: MIL type JAN 5A6			1		V3
	5960-262-0200	+	ELECTRON TUBE: MIL type JAN 5672			2		V1 V7
	5960-188-6588	+	ELECTRON TUBE: MIL type JAN 5676			1		V7
	5960-193-5135	+	ELECTRON TUBE: MIL type JAN 5678			2		V2 V9
	5960-230-5262	+	ELECTRON TUBE: MIL type JAN 6286			4		V5 V6 V10 V11 V5 V6 V11
			ELECTRON TUBE: MIL type JAN 6286			3		V2 V8 V9
	5960-296-1120	+	LAMP, INCANDESCENT: dial lamp; GE No. 331			1		E8
	6240-228-7130	+	TRANSFORMER DISCRIMINATOR TF-1327U; SigC dwg No. SC-D-91285			1		T201
	5950-242-6886	+	TRANSFORMER DISCRIMINATOR TF 2047U; SigC dwg No. SH-D-182471			1		T201
	5950-645-5405	+						

AN/PRC-8, 8A, 9, 9A, 10, 10A

(1) SOURCE MAINTENANCE AND RECOVERABILITY CODE	(2) FEDERAL STOCK NUMBER	(3) DESIGNATION BY MODEL	(4) DESCRIPTION	(5) UNIT OF ISSUE	(6) EXPENDABILITY	(7) QUANTITY AUTHORIZED	(8) ILLUSTRATIONS	
							FIGURE NO	ITEM NO
		1 2 3 4 5 6	AN/PRC-8, 8A, 9, 9A, 10, 10A (continued)					
			RADIO RECEIVER-TRANSMITTERS RT-175/PRC-9; RT-175A/PRC-9					
			NOTE: Model column 1 refers to RT-175/PRC-9; Column 2 refers to RT-175A/PRC-9					
	5820-243-0700	†	AMPLIFIER, INTERMEDIATE FREQUENCY AM 427/U; AM 427A/U; 4300 kc \pm 4 kc; SigC dwg No. SC-DL-91284			5		U101 thru U105
		†				4		U101 thru U104
	5820-569-0263	†	GENERATOR-PULSE-SWEEP O-325/U;			1		U991
	5995-160-4029	†	CRYSTAL UNIT CR-18/U; quartz; 1000 kc			1		Y1
	5995-160-4028	†	CRYSTAL UNIT CR-18/U; quartz; 4300 kc			1		Y2
	5995-467-2724	†	CRYSTAL UNIT CR 18/U; quartz; 2150 kc			1		Y1
	5960-188-0829	†	ELECTRON TUBE: MIL type JAN 1AD4			2		V4 V8
		†				1		V4
		†				1		V3
	5960-262-0200	†	ELECTRON TUBE: MIL type JAN 5A6			2		V1 V7
	5960-188-6588	†	ELECTRON TUBE: MIL type JAN 5672			1		V7
		†				2		V2 V9
	5960-193-5135	†	ELECTRON TUBE: MIL type JAN 5676			4		V5 V6
	5960-230-5262	†	ELECTRON TUBE: MIL type JAN 5678			3		V10 V11 V5 V6 V11
		†				3		V2 V8 V9
	5960-296-1120	†	ELECTRON TUBE: MIL type JAN 6286			1		E8
	6240-228-7130	†	LAMP, INCANDESCENT: dial lamp; GE No. 331			1		T201
	5950-242-6886	†	TRANSFORMER DISCRIMINATOR TF-132/U; SigC dwg No. SC-D-91285			1		T201
	5950-645-5405	†	TRANSFORMER DISCRIMINATOR TF-204/U; SigC dwg No. SM D-182471			1		T201
			RADIO RECEIVER-TRANSMITTERS RT-176/PRC-10, RT-176A/PRC-10					
			NOTE: Model column 1 refers to RT-176/PRC-10, column 2 refers to RT-176A/PRC-10					

TM5820-292-10-17

AN/PRC-8, 8A, 9, 9A, 10, 10A

SOURCE MAINTENANCE AND RECOVERABILITY CODE	FEDERAL STOCK NUMBER	DESIGNATION BY MODEL	DESCRIPTION	UNIT OF ISSUE	EXPENDABILITY	AUTHORITY	ILLUSTRATIONS	
							FIGURE NO	ITEM NO
		1 2 3 4 5 6	AN/PRC-8, RA, 9, 9A, 10, 10A (continued)					
	5820-243-0700	+	AMPLIFIER, INTERMEDIATE FREQUENCY AM-427/U, AM-427A/U; 4300 kc \pm 4 kc; SigC dwg No. SC DL-91284			5		U101 thru U105
		+				4		U101 thru U104
	5820-569-0263	+	GENERATOR, PULSE SWEEP 0.325/U;			1		U301
	5955-160-4029	+	CRYSTAL UNIT CR 18/U: quartz; 1000 kc		NX	1		Y1
	5955-160-4028	+	CRYSTAL UNIT CR 18/U: quartz; 4300 kc		NX	1		Y2
	5955-667-2724	+	CRYSTAL UNIT CR 18/U: quartz; 2150 kc		NX	1		Y1
	5960-188-0829	+	ELECTRON TUBE: MIL type JAN 1AD4			2		V4 V8
		+				1		V4
	5960-262-0200	+	ELECTRON TUBE: MIL type JAN 5A6			1		V3
	5960-188-6588	+	ELECTRON TUBE: MIL type JAN 5672			2		V1 V7
		+				1		V7
	5960-193-5135	+	ELECTRON TUBE: MIL type JAN 5676			2		V2 V9
	5960-230-5262	+	ELECTRON TUBE: MIL type JAN 5678			4		V5 V6 V10 V11 V5 V6 V11
		+				3		V2 V8 V9
	5960-296-1120	+	ELECTRON TUBE: MIL type JAN 6286			3		E8
	6240-228-7130	+	LAMP, INCANDESCENT: dial lamp; GE No. 331			1		T201
	5950-242-6886	+	TRANSFORMER DISCRIMINATOR TF-132/U: SigC dwg No. SC-D 91285			1		T201
	5950-645-5405	+	TRANSFORMER DISCRIMINATOR TF-204-U: SigC dwg No. SM-D 182471			1		T201
			RUNNING SPARES AND ACCESSORY ITEMS					
			RADIO RECEIVER-TRANSMITTERS RT-174/PRC-8; RT-174A/PRC 8					
	5820-243-0700	+	AMPLIFIER, INTERMEDIATE FREQUENCY AM 427/U; AM-427A/U; 4300 kc \pm 4 kc; SigC dwg No. SC DL-91284			2	3	U101 thru U105
		+				2	3	U101 thru U104

AN/PRC 8, RA, 9, 9A, 10, 10A

TW 5820-292-10-18

(c) SOURCE MAINTENANCE AND RECOVERABILITY CODE	(d) FEDERAL STOCK NUMBER	(e) DESIGNATION BY MODEL	(f) DESCRIPTION	(g) UNIT OF ISSUE	(h) EXPENDABILITY	(i) QUANTITY AUTHORIZED	(j) ILLUSTRATIONS	
							FIGURE NO	ITEM NO
			AN/PRC-8, 8A, 9, 9A, 10, 10A (continued)					
	5920-569-0263	+	GENERATOR PULSE SWEEP 0-325/U:			1	3	U301
	5960-188-0829	+	ELECTRON TUBE: MIL type JAN 1AD4			1	3	V4 V8
		+				1	3	V4
	5960-262-0200	+	ELECTRON TUBE: MIL type JAN 546			1	3	V3
	5960-188-6588	+	ELECTRON TUBE: MIL type JAN 5672			1	3	V1 V7
		+				1	3	V7
	5960-193-5135	+	ELECTRON TUBE: MIL type JAN 5676			1	3	V2 V9
	5960-230-5262	+	ELECTRON TUBE: MIL type JAN 5678			2	3	V5 V6
						1	3	V10 V11
						1	3	V5 V6
								V11
	5960-296-1120	+	ELECTRON TUBE: MIL type JAN 6286			1	3	V2 V8 V9
	6240-228-7130	+	LAMP, INCANDESCENT: dia 1 amp; OE No. 331			1	3	E8
			RADIO RECEIVER-TRANSMITTERS RT-175/PRC-9; RT-175A/PRC-9					
	5920-243-0700	+	AMPLIFIER, INTERMEDIATE FREQUENCY AM-427/U; AM-427A/U; 4300 kc \pm 4 kc; SigC dwg No. SC-DL-91284			2	3	U101 thru U105
		+				2	3	U101 thru U104
	5920-569-0263	+	GENERATOR-PULSE SWEEP 0-325/U:			1	3	U301
	5960-188-0829	+	ELECTRON TUBE: MIL type JAN 1AD4			1	3	V4 V8
		+				1	3	V4
	5960-262-0200	+	ELECTRON TUBE: MIL type JAN 546			1	3	V3
	5960-188-6588	+	ELECTRON TUBE: MIL type JAN 5672			1	3	V1 V7
		+				1	3	V7

(1) SOURCE MAINTENANCE AND RECOVERABILITY CODE	(2) FEDERAL STOCK NUMBER	(3) DESIGNATION BY MODEL	(4) DESCRIPTION	(5) UNIT OF ISSUE	(6) EXPENDABILITY	(7) QUANTITY AUTHORIZED	(8) ILLUSTRATIONS	
							FIGURE NO	ITEM NO
		1 2 3 4 5 6	AN/PRC-8, 8A, 9, 9A, 10, 10A (continued)					
	5960-193-5135	+	ELECTRON TUBE: MIL type JAN 5676			1	3	V2 V9
	5960-230-5262	+	ELECTRON TUBE: MIL type JAN 5678			2	3	V5 V6
		+				1	3	V10 V11
	5960-296-1120	+	ELECTRON TUBE: MIL type JAN 6286			1	3	V5 V6
	6240-228-7130	+	LAMP, INCANDESCENT: dial lamp; GE No. 331			1	3	V11
			RADIO RECEIVER TRANSMITTERS RT-176/PRC-10, RT-176A/PRC-10			1	3	V2 V8 V9
	5920-243-0700	+	AMPLIFIER, INTERMEDIATE FREQUENCY AM 427 U; AM 427A/U; 4300 kc \pm 4 kc; SigC dwg No. SC-DL-91284			2	3	E8
	5920-569-0263	+	GENERATOR, PULSE SWEPT 0.325/U;					U101 thru
	5960-188-0829	+	ELECTRON TUBE: MIL type JAN 1AD4			1	3	U105
	5960-262-0200	+	ELECTRON TUBE: MIL type JAN 5A6			1	3	U101
	5960-188-6588	+	ELECTRON TUBE: MIL type JAN 5672			2	3	thru
	5960-193-5135	+	ELECTRON TUBE: MIL type JAN 5676			1	3	U104
	5960-230-5262	+	ELECTRON TUBE: MIL type JAN 5678			1	3	U301
		+				1	3	V4 V8
						1	3	V4
						1	3	V3
						1	3	V1 V7
						1	3	V7
						2	3	V2 V9
						2	3	V5 V6
						1	3	V10 V11
						1	3	V5 V6
						1	3	V11
	5960-296-1120	+	ELECTRON TUBE: MIL type JAN 6286			1	3	V2 V8 V9
	6240-228-7130	+	LAMP, INCANDESCENT: dial lamp; GE No. 331			1	3	E8

AN/PRC-8, 8A, 9, 9A, 10, 10A

TM 5820-292-10-20

G. H. DECKER,
General, United States Army,
Chief of Staff.

Official:

R. V. LEE,
Major General, United States Army,
The Adjutant General.

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6-425 (2)	11-15 (2)	29-51 (2)
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6-501 (2)	11-17 (2)	29-56 (2)
6-525 (2)	11-38 (2)	29-307 (2)
6-535 (2)	11-55 (2)	32-51 (2)
6-536 (2)	11-56 (2)	32-57 (2)
6-537 (2)	11-57 (2)	39-51 (2)
6-545 (2)	11-95 (2)	39-61 (2)
6-558 (2)	11-96 (2)	39-65 (2)
6-565 (2)	11-97 (2)	44-8 (2)
6-575 (2)	11-98 (2)	44-12 (2)
6-576 (2)	11-99 (2)	44-16 (2)
6-577 (2)	11-117 (2)	44-85 (2)
6-585 (2)	11-155 (2)	44-87 (2)
7 (2)	11-500 AA-AE	44-435 (2)
7-2 (2)	RA-RT (4)	44-436 (2)
7-11 (2)	11-555 (2)	44-437 (2)
7-12 (2)	11-557 (2)	44-445 (2)
7-17 (2)	11-558 (2)	44-446 (2)
7-19 (2)	11-587 (2)	44-447 (2)
7-25 (2)	11-592 (2)	44-448 (2)
7-26 (2)	11-597 (2)	44-535 (2)
7-27 (2)	11-608 (2)	44-536 (2)
7-31 (2)	17 (2)	44-537 (2)
7-32 (2)	17-2 (2)	44-544 (2)
7-37 (2)	17-17 (2)	44-545 (2)
7-52 (2)	17-22 (2)	44-546 (2)
7-168 (2)	17-25 (2)	44-547 (2)
8-67 (2)	17-26 (2)	44-548 (2)
8-76 (2)	17-27 (2)	51-2 (2)
8-127 (2)	17-45 (2)	52-2 (2)
8-500 AA-AH (2)	17-46 (2)	55-56 (2)
9-7 (2)	17-51 (2)	55-57 (2)
9-17 (2)	17-55 (2)	55-117 (2)
9-47 (2)	17-56 (2)	55-187 (2)
9-87 (2)	17-57 (2)	55-457 (2)
9-127 (2)	17-65 (2)	55-458 (2)
9-227 (2)	17-66 (2)	55-500 AA-AE (2)
9-377 (2)	17-77 (2)	55-557 (2)
9-500 AA-AC (2)	17-85 (2)	57 (2)
10-61 (2)	19-29 (2)	57-5 (2)

NG: State AG (3); Units—Same as Active Army except allowance is one copy to each unit.

USAR: None.

For explanation of abbreviations used see AR 320-50.

(Instructions continued from inside of front cover.)

CONDENSED OPERATING INSTRUCTIONS FOR RADIO SETS AN/PRC-8, -8A,-9,-9A,-10,-10A AND -28

TO TRANSMIT

- f. Press the push-to-talk switch on the handset and talk into the microphone. (When using an A model or an AN/PRC-28, wait until the motorboating sound stops before talking.)

TO LISTEN

- g. Release the push-to-talk switch.

STOPPING PROCEDURE

- h. Turn the POWER switch (3) to OFF.

TM 11-5820-292-10 RADIO SETS AN/PRC-8, -8A, -9, -9A, -10, -10A, AND -28-1961